

Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-28. (Cancelled).

29. (New) A method for manufacturing a workpiece comprising the steps of:
providing a substrate having a substantially flat surface;

removing material from said surface by moving said surface of said substrate relative to, on and along a polishing surface, thereby establishing a polishing pressure between said surface of said substrate and said polishing surface;

said moving including a rotation about an axis by a shaft driven in a predetermined manner and axially loaded by a polishing force establishing said polishing pressure;

providing along said shaft a shaft section having a predetermined torque/deformation characteristic, said characteristic of said section being independent of torque/deformation characteristic of the remainder of said shaft;

monitoring deformation of said shaft section as a torque indicative signal;

controlling said removing in dependency of said torque indicative signal;

manufacturing said workpiece from said substrate having said material removed.

30. (New) A method for manufacturing a workpiece comprising the steps of:
providing a substrate having a substantially flat surface;
removing material from said surface by moving said surface of said substrate relative to, on and along a polishing surface;,
said moving including a rotation about an axis by a shaft driven in a predetermined manner;
providing along said shaft a shaft section having a predetermined torque/deformation characteristic, said characteristic of said section being independent of torque/deformation characteristic of the remainder of said shaft;
monitoring said deformation by a sensor arrangement mounted on said shaft section
outputting a torque indicative signal;
transmitting a signal dependent from said torque indicative signal from said rotating section to a system part which is stationary with respect to said section, thereby performing analog-to-digital signal conversion of said signal transmitted before performing said rotating-to-stationary transmitting;
controlling said removing in dependency of said torque indicative signal;
manufacturing said workpiece from said substrate having said material removed.

31. (New) The method of claim 29 or 30, wherein said shaft carries at one end thereof said substrate.

32. (New) The method of one of claims 29 or 30, wherein said substrate has at least one material interface between two different materials and substantially parallel to said substantially flat surface, thereby monitoring when said removing reaches said interface by said monitoring of said deformation.

33. (New) The method of claim 32, said controlling comprising disabling said removing when reaching said interface is detected.

34. (New) The method of one of claims 29 or 30, further comprising monitoring said deformation by monitoring strain along said section.

35. (New) The method of claim 29 or 30, further comprising providing at least a part of said shaft with a first hollow inner space and providing at least a part of said section with a second hollow inner space, said first and second hollow inner spaces being in communication, monitoring said deformation with the sensor arrangement mounted on said section and generating an electric output signal and transmitting a signal dependent on said output signal to a system stationary with respect to said rotating section through said first and second hollow spaces being in communication.

36. (New) The method of claim 29 or 30, further comprising providing at least a part of said shaft with a first hollow inner space and providing at least a part of said section with a second hollow inner space, said first and second hollow spaces being in communication, monitoring said deformation by a sensor arrangement mounted on said section and providing electric supply to said sensor arrangement via said first and second hollow spaces in communication.

37. (New) The method of one of claims 29 or 30, comprising monitoring said deformation by means of a sensor arrangement mounted on said section and generating an electric output signal, transmitting a signal dependent from said electric output signal from said rotating section to a system stationery with respect to said section via a slide contact arrangement.

38. (New) The method of claim 37, wherein said transmitting includes transmitting via at last two redundant sliding contact arrangements.

39. (New) The method of one of claims 29 or 30, said shaft having an outer diameter and further comprising providing said section with an outer diameter smaller than said diameter of said shaft.

40. (New) The method of claim 29 or 30, wherein said workpiece is a semiconductor workpiece.

41. (New) The method of claim 29 or 30, wherein said workpiece is a low-scale or ultra-low-scale integrated microelectronic workpiece.

42. (New) The method of claim 29 or 30, further comprising performing said removal by chemical mechanical polishing, thereby applying a slurry to said polishing surface.

Amendments to the Drawings:

The attached sheet of drawings includes changes to Figs. 1, 2A, 2B and 2C.

The changes are labeling each figure as "PRIOR ART".

Attachment: Replacement Sheet